Applicants: Ponnapakkam Adikesavan Loka Bharathi et al.

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## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

## Listing of the Claims:

- 1. (Currently Amended) A Novel An isolated deep-sea bacterium deposited with the National Institute of Oceanography, Goa, India, having accession no. NIOCC isolate #222, and deposited with the Type Culture Microbial Collection and Gene Bank (MTCC) having accession no. MTCC 5114, which has similar properties to known Brevibacterium casei, which isolated deep-sea bacterium was isolated from the deep sea at 5000m depth waters of the Indian Ocean.
- 2. (Currently Amended) Novel The isolated deep-sea bacterium as claimed in claim 1 wherein the isolated deep-sea bacterium is a baroduric (pressure tolerant) on i.e. it is capable of growing both a 500 atm and at 1 atm pressure.
- 3. (Currently Amended) Novel The isolated deep-sea bacterium as claimed in claim 1 wherein, the a petroleum ether fraction of the isolated deep-sea bacterium when scanned in an UV visible spectrometer shows characteristic peaks at 448nm with shoulders at 430nm and 470nm, which is are similar to the caratenoid characteristic peaks of a carotenoid compound.
- 4. (Currently Amended) Novel The isolated deep-sea bacterium as claimed in claim 1 wherein, the an alcoholic extract of the said isolated deep-sea bacterium laving caratenoids has carotenoid, UV absorption, anti bacterial, and pH indicating properties.

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- 5. (Currently Amended) Novel The isolated deep-sea bacterium as claimed in claim + 4 wherein[,] the extract of the isolated deep-sea bacterium is used in many industrial applications, such as a food and beverages additive and food additive colour cum preservative.
- 6. (Withdrawn) A process for the preparation of alcoholic extract of deep-sea bacterium isolated from the Indian costal zones of Arabian sea, said process comprising isolating the bacterium and growing the cells in a medium with salinity ranging from 1.5 to 3% for 3-4 days at 28 ±2°C, centrifuging and washing with 1.5% NaCl, extracting with alcohol for 2-3 times and obtaining an extract which shows the properties of carotenoids (yellow/orange colour), UV absorption, antibacterial and pH indicator.
- 7. (Withdrawn) A process as claimed in claim 6 wherein, the solvent used to extract is methanol.
- 8. (Withdrawn) A process as claimed in claim 6 wherein, the extract is used as UV (A, B, C) absorbing compound.
- 9. (Withdrawn) A process as claimed in claim 6 wherein, the extract inhibits growth of Gram-positive and Gram-negative bacteria.
- 10. (Withdrawn) A process as claimed in claim 6 wherein, the yellow methanolic extract shows reversible colour change, being pink under alkaline and yellow under neutral or acific conditions and is used as a pH indicator.

## 11-12. (Canceled)

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- 13. (Withdrawn) Use of methanolic extract of novel bacterium for enhancing the colour and shelf life of cheese or yoghurt.
- 14. (Withdrawn) Use of methanolic extract as claimed in claim 13 wherein, the amount of extract used for enhancing the colour and shelf life of cheese and yoghurt ranging between 0.01 g/kg to 10 g/kg.
- 15. (Withdrawn) Use of methanolic extract as claimed in claim 13 wherein, the amount of extract used for enhancing the colour and shelf life of cheese or yoghurt is 0.01 g/kg.
- 16. (Withdrawn) Use of dried methanolic extract for preparation of menaquinone-7-8 containing substance for use in food and beverage.
- 17. (Withdrawn) Use as claimed in claim 16 wherein, the quality of extract used in the range between 0.0001 to 0.001%.
- 18. (Withdrawn) A process for preparing menaquinone-7,8 containing substance, said process comprising growing the cells claimed in claim 1, for 2-5 days, harvesting after centrifugation and either spray drying or lyophilizing and using at a concentration ranging between 0.5 to 10% for preventing and treatment of osteoporosis.
- 19. (Withdrawn) A process as claimed in claim 18 wherein, growing the cells for 4 days before harvesting.